

SCHOOL ASSET MANAGEMENT SYSTEM

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**A report submitted in partial fulfillment of the requirements for the award of the degree of
Bachelor of Computer Science (Software Engineering)**

**Faculty of Computer Systems & Software Engineering
Universiti Malaysia Pahang**

JUNE 2012

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ABSTRACT

Asset item divided into two categories, inventory and model asset. At the school stationeries are used very commonly by people in an office. SAMS is a system from manual to computerized system. It is developed for staffs of the school to take any asset item such as stationeries they need and management of items at the school. Current practice uses manual forms of log books to keep records of stationeries taken by staffs. This method burdens staffs who want to take stationeries from school counter. SAMS was the solution to this problem. This system can help staffs in the SK USJ20 manage the procedure of taking stationeries because one of the objectives of this project is to computerize the manual form asset stationeries item taken by staffs. Therefore, this system will be very helpful and can make the management of asset stationeries item run smoothly. SAMS is developed by using Adobe Dreamweaver CS3 and Xampp Server.

ABSTRAK

Pendaftaran item Aset dibahagikan dua kategori, inventori dan asset. Peralatan menulis adalah peralatan yang biasa digunakan oleh orang-orang di pejabat. Ia termasuk didalam harta modal sekolah. SAM S adalah satu sistem yang dibina untuk memudahkan pihak sekolah terutama pembantu tadbir menguruskan harta dan modal kerajaan sekolah. Sistem berkomputer dibangunkan untuk kakitangan sekolah untuk mengambil apa-apa butiran aset seperti alat tulis yang mereka perlukan dan pengurusan item di dalam sekolah. Sekolah menggunakan sistem manual seperti manual buku log untuk menyimpan rekod alat tulis diambil oleh kakitangan. Kaedah ini membebaskan kakitangan yang ingin mengambil alat tulis dari sekolah. SAM S adalah penyelesaian kepada masalah ini. Sistem ini boleh membantu staf di USJ20 SK menguruskan prosedur mengambil alat tulis kerana salah satu objektif projek ini adalah untuk berkomputer yang bentuk alat tulis item aset yang diambil oleh kakitangan. Oleh itu, sistem ini sangat membantu dan boleh membuat pengurusan item harta modal sekolah dan alat tulis berjalan lancar. SAMS dibangunkan dengan menggunakan Adobe Dreamweaver CS3 dan Xampp Server.

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CHAPTER 1

INTRODUCTION

1.1 Background

The School Asset Management System(SAMS) is proposed to be used by the primary and secondary school in Malaysia. Asset in school is divided by two categories the first is inventory stationery and second modal asset. Inventory asset is defined as any materials, such as paper,envelopes,pens, ink, rulers, etc. System is defined as an organized and coordinated method,or a set object or phonemena grouped together for classification or registration. SK USJ20 is acronym for “Sekolah Kebangsaan USJ 20” the school is a group learning Institute under direct jurisdiction of the Ministry of Education Malaysia. The financial management and asset the school has been discovered by management of Ministry of education.

The asset inventories such as stationeries are used very commonly by people working in an office. At the SK USJ20 in Subang Jaya Selangor, stationaries are

supplied for the use staffs. School Asset Management System (SAMS) in an asset booking and registration system developed for staffs of the school to take stationeries they need, keep booking and view the stationaries available. Other then that administrator responsible to approve the booking asset item. This system is a computerized the manual system asset management.

School Asset Management System is a web – based system developed by HTML, PHP and JavaScript scripting languages. The system interacts with a database using Server Query Language (SQL).

1.2 Problem Statement

The problem statement described for the conflict asset management of the school and problem which manage to the need simplify, record and printing certificate of each asset. Currently, a school asset management system at the school is performed manually, through a manual process. This, however makes the process laborious and time consuming.

The manual process normally will involve extensive paperwork and is prone to human error. The Microsoft Word and Microsoft Excel which currently used to record information of an asset sometimes can be mistaken , incomplete and miscalculate as well as non - integrated. It is also also troublesome tedious to trace the physical asset and track their movement.

According the problem discovered above, vulnerabilities arise because of the manual process flows and its effect on almost all categories of user such as the applicant, an administration office and staff.

Basically, there are two foremost statement of the problem which is to be solved by a proposed system ;

- i. How the School Asset Management System, can be used to be improved and simplify the current process.
- ii. How and what asset information can be integrated and shared among process or user.

Seeing such problems exist among the users, it motivates the author to develop SAMS, which is a computerized system solution that is developed based on Rapid Application Development (RAD)

1.3 Objective

There are two objectives identified in this study, which are:

- i. To develop a system computerized School Asset Management System for SK USJ20.
- ii. To produce Software Development Planning, Software Requirements Specification and Software Design Documentation.

1.4 Scope

The scopes are defined as the boundary of the functionality, user system and database. These elements are important to make sure that the scopes of the system do not override the boundaries of the system. For User scope's elements, above shows the scopes of the user involved. This system is a web-based application. It can be accessed via the Intranet so that staffs can make bookings before taking items from the counter whom the person in command of the system manage the inventory asset item. It has security elements whereas only authorized users can view the specific amount of the content of this web-based application based on their user level of the system. In the database framework, it contains a table to record the data history, information, staff details and item details. All documentations are referring to Software Engineering such as SDP, SRS, and SDD

i. Administrator

- a. School admin uses this system to insert, update and delete the information such as asset details, and record all new assets issued.

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- b. Manages staff such as register new staff, updated staff details and delete staffs.
- c. All school assets must to record and register for each asset such as computer, laptop and so on.
- d. Admin can view all request assets of the applicant before sending
- e. Admin will have to to handle the booking asset when that requested approved.

ii. School Staff

- a. Staf can make bookings of items before taking them from the administrator.
- b. View status booking of users taken items.

1.5 Thesis Organization

The thesis consists of five chapters presented. An overview of the following chapters is as follows:

Chapter 1 is about the introduction of the system. In this chapter, the problem statement, objective and scope will be identified.

In chapter 2 , briefly explains about the reviews for the chosen project. This chapter is reviews that require to study to get complete information about the project. This chapter also explains about the technology that can use during the project development.

The methodology in chapter 3 purpose of this chapter is to discuss what methodology will be used while develop this system. Discussed on software process or flow process for School Asset Management System for Sekolah Kebangsaan USJ20. This chapter also explains about the justification of methodology used and hardware and software necessity.

Chapter 4 involves implementation that discusses about compilation of the processes involved in the project. This chapter involves data, the techniques of data and table that based on SQL and PHP tool's instructions.

Chapter 5 involves decision and discussion that elaborate about the result from stay analysis that have done by project research. The elements that should have in this chapter include result analysis, the problems of build project, and project solved. The last chapter is conclusion. This chapter mentioned about a summary that has to be done by the built project. The information includes in this chapter includes a summary of project, data summary and observation of the efficiency of the project and suggestion of the project approach to the next research.

CHAPTER 2

LITERATURE REVIEW

Literature review refers on interview, book, and the internet to get some information about this project to give a clearance perspective in developing for this project. This chapter will be discussed about overview of the manual system, study of the development tools and database management system. Its ultimate goal is to bring the reader up to date with current literature on a topic and forms the basis for another goal, such as the justification for future research.

2.1 Introduction

In Computer Science, information system is all about information technology and mediates the two opposing worlds of human activity (Steve Elky, 2006). Current system of the asset management system also has the system that can handle the process management as a computerized. But, there are few problem during using the system and that cause they used manually system. So , this literature review has been covered about the process of manual system as a result when the current system cannot use.

This literature review is for the purpose of getting some guidelines to implement the proposed project. Hence, in this section, a study has been done on certain related issues. First, an understanding on procurement process and the importance of asset management in general and in practice in the public sectors including Statutory bodies and ePerolehan application. Next, the completion and accuracy of the records which are commonly commented by the National Audit when auditing is done on the public sectors. The study further is continued by studying on various asset management systems. Strengths and weaknesses on the asset management systems under study are also identified. Figure 2.1 below illustrates the Approach of literature review in order to gain the knowledge of the study area.

2.2 Understanding about Asset and Asset Management

It has been the aspiration of the government to continue improving efficiency and effectiveness in the management of an asset in the public sectors. In moving towards this, several steps have been introduced in the public sector asset management system which is in line with the development of technology. The focuses are given to the maintaining and maintenance aspect to ensure that government assets are well maintained and as such their usage and life span can be optimized. In the Seventh Year Plan (1996 - 2000), the government has allocated RM 250 million to upgrade and enhance the management of government assets in public sector, including the Federation of Statutory Body.

In the year 1999, efforts have been taken to integrate the asset-management system that has been developed separately and stand alone by various public agencies. Trial run for the implementation of the asset and store management system based on the regionalization, and operational store concepts are being carried out at four pioneer agencies. The agencies involved are the Defense Ministry, the Education Ministry, the Agricultural Ministry, and the Malaysian Royal Police. Through this approach, it is hope that the government asset and store management image could be improved from an outdated and inefficient system to a more sophisticated, economic and effective system in line with the effort to implement the electronic government (e-government).

The development of e-Procurement and Planning System & Electronic Budgetary Control (e-SPKB) are among the steps taken towards the realization of electronic government management.

2.2.1 Asset

Pekeliling Perbendaharaan (PP) Bill 2 Year 1991 described in details about asset , right from registration to disposal. The circular is a core circular for recoding the basic capital asset , inventory and office supplies information. Apart from that circular is give the defination of asset and explain all the forms used to record all assets. Need to record the basic information of capital asset, inventory and office supplies on a comprehensive basic which include information such as types, particulars, cost, placement, disposal , signature of officer responsible, inspection date, etc (preparation of asset record also depends on the availability and channeling of the basic documents)

Type of asset is divided into five :

- a. Capital Asset : asset value equal to RM500.00 or more at procurement point.
- b. Fix Asset : Building or Land
- c. Inventory : value less than RM500 each at time of procurement.
- d. Office Supplies : consumables of low value and not economic to be traced.
- e. Store Items : not yet used items and need to be stored for operational use , maintenance etc.

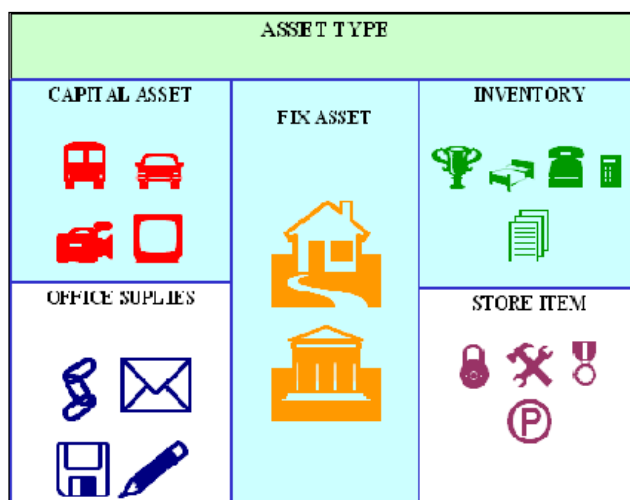


Figure 2.2: Five Type of Asset (Ministry of Finance, Financial Management Course)

2.2.2 Asset Management

The figure 2.3 below illustrates the boundary of asset management as defined the circular

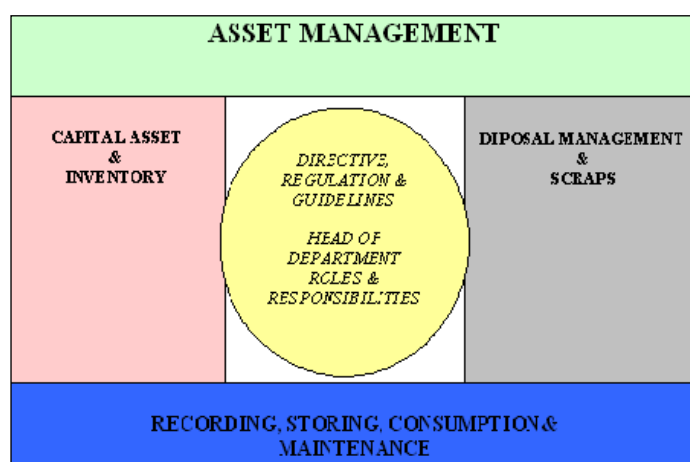


Figure 2.3:Asset Management(Ministry of Finance, Fiance Management Course)

2.2.3 Asset Management Flow

The Figure 2.4 below illustrates the flow of the asset management process as defined the circular.

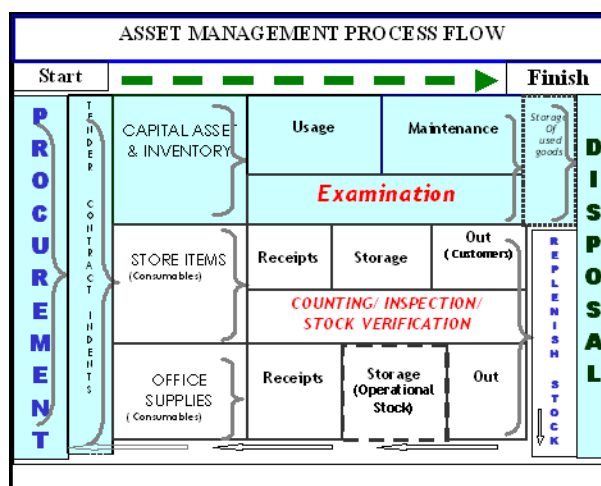


Figure 2.4 : The Asset Management Process Flow (Ministry of Finance)

2.3 Review Inventory asset management

The Multimedia Super Corridor (MSC) is a world – first , world-class act to help companies of the world test the limits of technology and prepare themselves for the future and attributes. To spearhead the development of the MSC and give shape to its environment, seven primary areas for multimedia applications have been identified. The seven flagship application are Electronic Government, Multipurpose Card, Smart Schools, Telehealth, R&D Clusters, E-Business and Technopreneur Development.

ePerolehan allows suppliers to present their products on the World Wide Web, receive, manage and process purchase orders and receive payment from government agencies via the Internet. The supplier's product catalogue is converted into the form of an electronic catalogue or eCatalogue, which can be viewed from any desktop with a web browser. The supplier is able to submit quotations, obtain tender document and submit tender bid through ePerolehan. ePerolehan allows suppliers to register or renew their registration with

the Ministry of Finance through the Internet. Suppliers are able to submit application, check application status and pay registration fees through ePerolehan.

ePerolehan is offering a comprehensive procurement system through the process of Quotation and Tender, which will be automating the entire system, starting from a formal application from user's workplace, proposal preparation, advertising, evaluation, invitation to the suppliers, up to payment completion.

i. Quotation :

- a. Quotation process is for any purchase with a total value of RM100,000 but less than RM200,000.
- b. Through the quotation process, invitation is sent out to the identified suppliers which enables prompt response from the suppliers

ii. Tender :

- a. Tender is for procurement with the value of RM200,000 or more
- b. The suggested system will simplify the procurement process, as online transaction will be quickly and securely implemented.
- c. It multiplies efficiency and noticeably reduces turnaround time and related costs.

Some of the functions and benefits of the quotation and tender process through ePerolehan:

- a. Status Monitoring: This system will monitor the status of Purchase Order that has been sent out.
- b. Consolidated Proposals: Proposals that have been received will be consolidated automatically for analysis. The Technical and Financial Proposals will be

separated automatically and directed to the respective committees for decision making.

- c. Document Security: Proposals that have been accepted from the suppliers will be kept in a secure document server and may only be seen on the date of the opening of Tender.
- d. Automatic Comparison Schedule: All proposals will be accumulated and a comparison schedule will be generated automatically based on the key comparison fields. This will save time and assist the Technical and Financial committees to carry out rating / ranking upon the accepted proposals.
- e. Report: Different reports will be prepared to analyze the patterns of purchases and expenses.

With the unique qualities available in the ePerolehan system, it will simplify the procurement process of the Quotation and Tender. The procurement process will be better organized and more proficient, as the system aids the Approver, the Committee and the Committee Chairperson in the process of evaluation and decision making, as well as advancing the suggested decision promptly.

2.4 Motivation to Develop System

Accountant General comments has raised weaknesses for the year 1999 Records on the management of asset and store were not maintained accordingly and the officer-in-charge did not carry out physical inspection from time to time. Procurement of store goods was not done according to requirement where as the disposal action was not carried out according to the procedure.

Accountant General comments has raised weaknesses for the year 2001 among others are;

- a. Capital Capital Asset Registry and Inventory Registry was not updated

- b. 479 units of capital asset purchased for the period of 1999 to 2000 was not recorded in the registry; (In 8 State Departments / Institutes)
- c. There is no proof that physical inspection was carried out on capital asset
- d. Stock verification was not carried out (3 departments)
- e. Capital Assets were not identified as “Hak Milik Kerajaan” (6 State Departments / Centers)
- f. 20 units of laboratory equipment / office equipment valued at RM428,729 has not been used – reasons: basic facilities has not been installed / not enough staff)
- g. Registry of Capital Asset do not follow the capital asset which were transferred permanently to districts (3 State Departments)
- h. Capital Assets which were broken-down have not been certified for disposal

2.5 Review Sample of the Asset Management System

The following are three screen snapshots from internet .Some sample of screen design and information capture in the asset management system or application.

2.5.1 Asset Management System (AssetWin)

Some of the sample screens of Asset Management System are used by various US government offices such as Defense Logistics Information service, Honolulu Police Department, Illinois State Treasurer, Lake County Illinois and Iowa Army National Guard. Managing IT assets is getting more challenging these days because of the different mobile applications and numerous locations in which the IT assets are relocated to. Bar-coding plays an important role in managing these assets.

Figure 2.5 : Master Catalog - Edit

Location Code	Location Description	Vacant	Location Type	Square Feet	Cost Per	Typical
BCT-CR01	BEAR CAVE TOWER, COM ROOM 1		TOWER	0.00	\$0.00	
C3MKT1	Bldg C, Floor 3, Mkt Dept, Room 1		Workstation	0.00	\$0.00	WT0001
C3MKT2	Bldg C, Floor 3, Mkt Dept, Room 2		Workstation	0.00	\$0.00	TYPICAL 'A'
C3MKT3	Bldg C, Floor 3, Mkt Dept, Room 3		Workstation	0.00	\$0.00	WT0003
C3MKT4	Bldg C, Floor 3, Mkt Dept, Room 4		Workstation	0.00	\$0.00	

Figure 2.6 : Location Code Data – Add

2.5.2 MBBJ Asset Management

This MBBJ Asset Management System by “Majlis Bandaraya Johor Bahru “. This system show that user be able to manage the asset item record by online which that they did using manual way such as form record . The technology that uses is based on Web – based Application.

There are several advantages in this system. For example the user did not have much time review all the asset manually. Moreover, it will not waste time when they want to pay it at anytime they want. Then, this system also has its own disadvantages. One of that is this system only can be used for the user target that do the asset management system“MBJB” only. Moreover, the user did not know the concept of MBJB asset management system when the system is crowded with the not related information provided.

The several One of the MBJB package available. The general section allows for setting default values for more common data entry items such as register new asset, division, group, location, building, aisle, bay, rack, and units of measure. When a new asset is entered the defaults will apply unless they are overwritten with the other data.

ID	Tarikh	Label	Jenis	Model	Kumpulan	Status
1	01/02/2010	INSJBKPNCT1841999-1	Server	Hp K Class 9000	Am	AJST
2	01/02/2010	INSJBKPNCT1841999-3	Server	Server Network Packard	Am	AJST
3	01/02/2010	INSJBKPNCT1841999-3	Server	Hp D Class 9000	Am	AJST
4	01/02/2010	INSJBKPNCT1820000-1	Meja Besi	Meja Besi (1. 629 Meter = 6 Kaki Panjang)	Individu	AJST
5	02/02/2010	INSJBKPNCT1820000-2	Meja Besi	Meja Besi (1. 219 Meter = 4 Kaki Panjang)		AJST
6	02/02/2010	INSJBKPNCT1820000-3	Meja Besi	Meja Besi (1. 219 Meter = 4 Kaki Panjang)		AJST
7	02/02/2010	INSJBKPNCT1820000-4	Meja Besi	Meja Besi (1. 219 Meter = 4 Kaki Panjang)		AJST
8	02/02/2010	INSJBKPNCT1820000-5	Meja Besi	Meja Besi (1. 219 Meter = 4 Kaki Panjang)		AJST
9	02/02/2010	INSJBKPNCT1820000-6	Meja Besi	Meja Besi (1. 219 Meter = 4 Kaki Panjang)		AJST
10	02/02/2010	INSJBKPNCT1820000-7	Meja Besi	Meja Besi (1. 219 Meter = 4 Kaki Panjang)		AJST
11	02/02/2010	INSJBKPNCT1842004-1	Pintu	Fortgate 2000		AJST

Figure 2.7 : MBJB asset management system